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EXAMINER	
RYMAN, DANIEL J	
ART UNIT	**PAPER NUMBER**
2665	

DATE MAILED: 04/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/613,940	SIMONS ET AL.	
	Examiner	Art Unit	
	Daniel J. Ryman	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 January 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *1/21/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Regarding the rejection of claims 21-24 under 35 USC § 112, no amendment to claim 21 was submitted. Therefore the rejection of claims 21-24 is maintained.

2. Applicant's arguments with respect to claims 1-32, 34, and 35 have been considered but are moot in view of the new ground(s) of rejection.

3. Regarding claim 33, Applicant's arguments filed 1/21/2005 have been fully considered but they are not persuasive. On page 13, with respect to claim 33, Applicant asserts that Ardon does not disclose a data slice controller. Examiner, respectfully, disagrees.

4. The limitations of claim 33 do not specifically limit the "data slice controller" or the "data slice subsystem." Here, Examiner has equated the "data slice subsystem" with the "distributed switch unit" of Ardon (see col. 11, lines 41-47). In Ardon, the distributed switch unit transmits data in time slots, i.e. data slices, such that, as broadly defined, the distributed switch unit reads on the "data slice subsystem." Ardon further discloses a switch controller, which, as broadly defined, reads on the "data slice controller." Given the above arguments, Examiner maintains the rejection of claim 33.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 21-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. In line 6 of claim 21, it is unclear if the phrase "the central switch fabric subsystem" refers to the first or the second central switch fabric subsystem. For the purposes of prior art rejections, Examiner will interpret "the central switch fabric subsystem" to be "the second central switch fabric subsystem".

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1, 4, 11-13, 17, 20, and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Andersson et al. (USPN 6,449,275).

10. Regarding claim 1, Andersson discloses a network device, comprising: a central switch fabric subsystem (ref. 22m); and a distributed switch fabric subsystem (ref. 22a1-22a4) coupled to the central switch fabric subsystem and capable of transferring network data packets with the central switch fabric subsystem (Fig. 1; col. 1, lines 57-65; col. 2, lines 30-47; and col. 5, lines 32-55).

11. Regarding claim 4, Andersson discloses that the central switch fabric subsystem is located on at least one switch fabric card (board) (col. 1, line 57-col. 2, line 12).

12. Regarding claim 11, Andersson discloses a distributed switch fabric subsystem interface (ref. 30) coupled with the distributed switch fabric subsystem and capable of transferring network data with the distributed switch fabric subsystem (Fig. 1 and col. 5, lines 50-65).

13. Regarding claim 12, Andersson discloses that the distributed switch fabric subsystem is a first distributed switch fabric subsystem and further comprising: a second distributed switch fabric subsystem (ref. 22a1-22a4) coupled to the central switch fabric subsystem and capable of transferring network data with the central switch fabric subsystem and the first distributed switch fabric subsystem (Fig. 1; col. 1, lines 57-65; col. 2, lines 30-47; and col. 5, lines 32-55).

14. Regarding claim 13, Andersson discloses that the central switch fabric subsystem comprises: a central controller subsystem (MP) coupled with the distributed switch fabric subsystem (Figs. 1 and 2 and col. 6, line 60-col. 7, line 20, esp. col. 7, lines 17-20); and a central data transfer subsystem (switch core) coupled with the central controller subsystem and the distributed switch fabric subsystem for transferring network data with the distributed switch fabric subsystem (col. 1, lines 57-65; col. 2, lines 30-47; col. 5, lines 32-55; and col. 6, line 60-col. 7, line 20, esp. col. 7, lines 17-20).

15. Regarding claim 17, Andersson discloses that the central data transfer subsystem comprises a cross-bar component (col. 1, lines 57-65).

16. Regarding claim 20, Andersson discloses a network device, comprising: a central switch fabric subsystem (ref. 22m); and a plurality of distributed switch fabric subsystems coupled to the central switch fabric subsystem (ref. 22a1-22a4), wherein each of the plurality of distributed switch fabric subsystems is capable of transferring network packet data with each of the plurality of distributed switch fabric subsystems through the central switch fabric subsystem (Fig. 1; col. 1, lines 57-65; col. 2, lines 30-47; and col. 5, lines 32-55) and wherein at least one of said distributed fabric subsystem comprises: a distributed data transfer subsystem comprising data slice component (core) (Fig. 1; col. 1, lines 57-65; col. 2, lines 30-47; and col. 5, lines 32-55),

and a distributed controller subsystem (BP/TU) coupled with the distributed data transfer subsystem for controlling network data transfer through the distributed data transfer subsystem (col. 3, lines 15-38).

17. Regarding claim 36, Andersson discloses a network device, comprising: at least one port for data ingress and at least one port for data egress (Fig. 1; col. 1, lines 57-65; col. 2, lines 30-47; and col. 5, lines 32-55), two forwarding subsystems (access sub-racks), each in communication with one of said ports (Fig. 1; col. 1, lines 57-65; col. 2, lines 30-47; and col. 5, lines 32-55), a central switch fabric (ref. 24m) coupled to said forwarding subsystems for transferring packetized data therebetween (Fig. 1; col. 1, lines 57-65; col. 2, lines 30-47; and col. 5, lines 32-55), and a distributed switch fabric subsystem (ref. 24a1-24a4) coupled to said central switch fabric and to at least one of said forwarding subsystems for transferring data therebetween (Fig. 1; col. 1, lines 57-65; col. 2, lines 30-47; and col. 5, lines 32-55).

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

19. Claims 2, 3, 5-7, 9, 10, 25-28, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson et al. (USPN 6,449,275) in view of Mazzola et al. (USPN 5,740,171).

20. Regarding claim 2, Andersson does not expressly disclose that the distributed switch fabric subsystem is located on a line card. Mazzola teaches, in a switch system, that a switch is

typically a computer comprised of interconnected cards, including line cards (col. 1, lines 29-39 and col. 3, line 64-col. 4, line 8) where each line card comprises multiple ports (col. 3, line 64-col. 4, line 8). It would have been obvious to one of ordinary skill in the art at the time of the invention to locate the distributed switch fabric subsystem on a line card since a line card comprises multiple ports and since the distributed switch fabric subsystem comprises multiple ports.

21. Regarding claim 3, Andersson in view of Mazzola, as broadly defined, discloses that the line card is a forwarding card since each line card forwards information out of the card (Andersson: Fig. 1; col. 1, lines 57-65; col. 2, lines 30-47; and col. 5, lines 32-55 and Mazzola: col. 1, lines 29-39 and col. 3, line 64-col. 4, line 8).

22. Regarding claim 5, Andersson discloses a network device, comprising: a central switch fabric subsystem (ref. 22m); and a distributed switch fabric subsystem (ref. 22a1-22a4) coupled to the central switch fabric subsystem and capable of transferring network data with the central switch fabric subsystem (Fig. 1; col. 1, lines 57-65; col. 2, lines 30-47; and col. 5, lines 32-55); wherein the central switch fabric subsystem comprises: a controller subsystem (MP) located on a first switch fabric card (specific device board) (Figs. 1 and 2 and col. 6, line 60-col. 7, line 20, esp. col. 7, lines 17-20); and a central data transfer subsystem (switch core) coupled with the controller subsystem (col. 1, lines 57-65; col. 2, lines 30-47; col. 5, lines 32-55; and col. 6, line 60-col. 7, line 20, esp. col. 7, lines 17-20).

Andersson does not expressly disclose that a portion of the central data transfer subsystem is located on a second switch fabric card. Mazzola teaches, in a switch system, that a switch is typically a computer comprised of a variety of interconnected cards (col. 1, lines 29-39

and col. 3, line 64-col. 4, line 8) where, as broadly defined, the controller subsystem is located on the supervisor card and the transfer subsystem is located on one of the variety of other cards, such as a line card. It would have been obvious to one of ordinary skill in the art at the time of the invention to locate the controller subsystem on a first switch fabric card and to locate a portion of the central data transfer subsystem on a second switch fabric card since switches are typically implemented using interconnected cards.

23. Regarding claim 6, Andersson in view of Mazzola suggests that another portion of the central data transfer subsystem is located on a third switch fabric card (Mazzola: col. 1, lines 29-39 and col. 3, line 64-col. 4, line 8).

24. Regarding claim 7, Andersson in view of Mazzola discloses that the distributed switch fabric subsystem comprises: a distributed data transfer subsystem (core) (Andersson: Fig. 1; col. 1, lines 57-65; col. 2, lines 30-47; and col. 5, lines 32-55); and a distributed controller subsystem (BP/TU) coupled with the distributed data transfer subsystem for controlling network data transfer through the distributed data transfer subsystem (Andersson: col. 3, lines 15-38).

25. Regarding claim 9, Andersson in view of Mazzola discloses that the distributed data transfer subsystem comprises a data slice component (core) (Andersson: Fig. 1; col. 1, lines 57-65; col. 2, lines 30-47; and col. 5, lines 32-55).

26. Regarding claim 10, Andersson in view of Mazzola discloses that the distributed controller subsystem comprises an enhanced port processor component (SPIM) (Andersson: col. 5, lines 56-65).

27. Regarding claim 25, Andersson discloses a network device, comprising: a central switch fabric subsystem (ref. 22m); and a plurality of forwarding subsystems (ref. 22a1-22a4) coupled

with the switch fabric (Fig. 1; col. 1, lines 57-65; col. 2, lines 30-47; and col. 5, lines 32-55), each forwarding subsystem comprising a switch fabric interface and a distributed switch fabric subsystem (ref. 24a1-24a4) (Fig. 1; col. 1, lines 57-65; col. 2, lines 30-47; and col. 5, lines 32-55), wherein each of the forwarding subsystems is capable of transmitting network packet data to another forward subsystem through its switch fabric interface and via said central and distributed switch fabric subsystems (Fig. 1; col. 1, lines 57-65; col. 2, lines 30-47; and col. 5, lines 32-55).

Andersson does not expressly disclose a plurality of switch fabric cards and forwarding cards. Mazzola teaches, in a switch system, that a switch is typically a computer comprised of a variety of interconnected cards (col. 1, lines 29-39 and col. 3, line 64-col. 4, line 8). Mazzola also teaches that the interconnected cards include line cards where each line card comprises multiple ports (col. 3, line 64-col. 4, line 8). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to have a plurality of switch fabric cards comprise the central switch fabric subsystem since switches (i.e. central fabric subsystem) are typically implemented using cards. In addition, the line cards of a switch system can be broadly interpreted as a forwarding card since each line card forwards information out of the card. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to have a forwarding card coupled with the switch fabric cards comprise the switch fabric interface and distributed switch fabric subsystem since switches (i.e. distributed switch fabric subsystem) are typically implemented using cards, including line cards where a line card comprises multiple ports and where the forwarding subsystem comprises multiple ports.

28. Regarding claim 26, Andersson in view of Mazzola discloses that the distributed switch fabric subsystem comprises: a data slice subsystem (core) for transferring network data with the

central switch fabric subsystem (Andersson: Fig. 1; col. 1, lines 57-65; col. 2, lines 30-47; and col. 5, lines 32-55).

29. Regarding claim 27, Andersson in view of Mazzola discloses that the data slice subsystem comprises: a plurality of data slice components for transferring network data with the central switch fabric subsystem (Andersson: Fig. 1; col. 1, lines 57-65; col. 2, lines 30-47; and col. 5, lines 32-55) where each core comprises multiple "components" such as the parts of a cross-connect.

30. Regarding claim 28, Andersson in view of Mazzola discloses that the distributed switch fabric subsystem further comprises: a controller subsystem (BP/TU) connected to the data slice subsystem for controlling which network data the data slice subsystem transfers (Andersson: col. 3, lines 15-38).

31. Regarding claim 30, Andersson in view of Mazzola discloses that the switch fabric interface comprises a switch fabric interface component (Andersson: Fig. 1; col. 1, lines 57-65; col. 2, lines 30-47; and col. 5, lines 32-55).

32. Regarding claim 31, Andersson in view of Mazzola suggests that the central switch fabric subsystem comprises: a scheduler coupled with the distributed switch fabric subsystem for scheduling network data transfers. Andersson in view of Mazzola discloses that each cell has a delay priority (Andersson: col. 8, lines 19-21). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to have a scheduler coupled with the distributed switch fabric subsystem for scheduling network data transfers in order to ensure that the data is transferred according to its delay priority.

33. Claims 8, 29, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson et al. (USPN 6,449,275) in view of Mazzola et al. (USPN 5,740,171) as applied to claims 7, 25, and 27 above, and further in view of So et al. (USPN 6,212,168).

34. Regarding claim 8 and 29, Andersson in view of Mazzola does not expressly disclose that the distributed switch fabric subsystem further comprises: a local timing subsystem coupled with the distributed data transfer subsystem (time slice subsystem) and the distributed controller subsystem. However, Andersson in view of Mazzola suggests local timing (Andersson: col. 20, lines 43-46). So teaches, in a modular ATM switching system, having a local timing subsystem (ref. 13 and 23 since these modules generate inter-module timing between ref. 13 and 32 and between ref. 23 and 32) coupled with the distributed data transfer subsystem and the distributed controller subsystem (ref. 14 and 24) in order to generate timing signals for the system (Fig. 1 and col. 2, lines 49-62). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the distributed switch fabric subsystem further comprise: a local timing subsystem coupled with the distributed data transfer subsystem and the distributed controller subsystem in order to generate timing signals for the system.

35. Regarding claim 32, Andersson in view of Mazzola does not expressly disclose that the central switch fabric subsystem includes at least one local timing subsystem and wherein the distributed switch fabric subsystem includes at least one local timing subsystem and further comprising: a central timing subsystem coupled to the local timing subsystems. However, Andersson in view of Mazzola suggests local timing (Andersson: col. 20, lines 43-46). So teaches, in a modular ATM switching system, having the central switch fabric subsystem include at least one local timing subsystem (ref. 32) and wherein the distributed switch fabric subsystem

includes at least one local timing subsystem (ref. 13 and 23 since these modules generate inter-module timing between ref. 13 and 32 and between ref. 23 and 32) and further comprising: a central timing subsystem coupled to the local timing subsystems in order to generate timing signals for the system (Fig. 1 and col. 2, lines 49-62). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the central switch fabric subsystem include at least one local timing subsystem and wherein the distributed switch fabric subsystem includes at least one local timing subsystem and further comprising: a central timing subsystem coupled to the local timing subsystems in order to generate timing signals for the system.

36. Claims 14, 15, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson et al. (USPN 6,449,275) as applied to claims 1 and 13 above, and further in view of So et al. (USPN 6,212,168).

37. Regarding claims 14 and 15, Andersson does not expressly disclose that the central switch fabric subsystem further comprises: a local timing subsystem coupled with the central controller subsystem. However, Andersson suggests local timing (col. 20, lines 43-46). So teaches, in a modular ATM switching system, having a local timing subsystem coupled with the central controller subsystem (ref. 33) and the central data transfer subsystem (ref. 32) in order to generate timing signals for the system (Fig. 1 and col. 2, lines 49-62). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to have a local timing subsystem coupled with the central controller subsystem and the central data transfer subsystem in order to generate timing signals for the system.

38. Regarding claim 18, Andersson does not expressly disclose that the central switch fabric subsystem includes at least one local timing subsystem and wherein the distributed switch fabric

subsystem includes at least one local timing subsystem and further comprising: a central timing subsystem coupled to the local timing subsystems. However, Andersson suggests local timing (col. 20, lines 43-46). So teaches, in a modular ATM switching system, having the central switch fabric subsystem includes at least one local timing subsystem (ref. 31) and wherein the distributed switch fabric subsystem includes at least one local timing subsystem (ref. 13 and 23 since these modules generate inter-module timing between ref. 13 and 32 and between ref. 23 and 32) and further comprising: a central timing subsystem coupled to the local timing subsystems in order to generate timing signals for the system (Fig. 1 and col. 2, lines 49-62). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the central switch fabric subsystem include at least one local timing subsystem and to have the distributed switch fabric subsystem include at least one local timing subsystem and further comprising: a central timing subsystem coupled to the local timing subsystems in order to generate timing signals for the system.

39. Regarding claim 19, Andersson in view of So discloses that the central timing subsystem is located within the central switch fabric subsystem (So: Fig. 1 and col. 2, lines 49-62).

40. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson et al. (USPN 6,449,275).

41. Regarding claim 16, Andersson does not expressly disclose that the central controller subsystem comprises a scheduler component. However, Andersson does discloses that each cell has a delay priority (col. 8, lines 19-21). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to have a scheduler in order to ensure that the data is transferred according to its delay priority.

42. Claims 21-24, 34, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson et al. (USPN 6,449,275) in view of Blanc et al. (USPN 6,411,599).

43. Regarding claim 21, Andersson does not expressly disclose that the central switch fabric subsystem is a first central switch fabric subsystem and further comprising: a second central switch fabric subsystem coupled with the plurality of distributed switch fabric subsystems, wherein each of the plurality of distributed switch fabric subsystems is capable of transferring network data with each of the plurality of distributed switch fabric subsystems through the central switch fabric subsystem. Blanc teaches, in a switching system, providing two switch fabric subsystems where each switch subsystem is connected to the same inputs in order to ensure continuous switching processes through redundancy (col. 1, lines 48-53 and col. 2, lines 16-34). It would have been obvious to one of ordinary skill in the art at the time of the invention to have a first central switch fabric subsystem and a second central switch fabric subsystem coupled with the plurality of distributed switch fabric subsystems, wherein each of the plurality of distributed switch fabric subsystems is capable of transferring network data with each of the plurality of distributed switch fabric subsystems through the central switch fabric subsystem in order to ensure continuous switching processes through redundancy.

44. Regarding claim 22, referring to claim 21, Andersson in view of Blanc discloses that one of the first and second central switch fabric subsystems comprises a primary central switch fabric subsystem and the other of the first and second central switch fabric subsystems comprises a redundant central switch fabric subsystem (Blanc: col. 1, lines 48-53 and col. 2, lines 16-34).

45. Regarding claim 23, Andersson in view of Blanc discloses that certain ones of the plurality of distributed switch fabric subsystems comprise primary distributed switch fabric

subsystems and certain others of the plurality of distributed switch fabric subsystems comprise redundant distributed switch fabric subsystems (Blanc: col. 1, lines 48-53 and col. 2, lines 16-34).

46. Regarding claim 24, Andersson in view of Blanc discloses that at least a portion of the plurality of distributed switch fabric subsystems provide a 1:N redundancy scheme (Blanc: col. 1, lines 48-53 and col. 2, lines 16-34).

47. Regarding claim 34, Andersson discloses a method of operating a network device, comprising: switching network packet data through a central switch fabric subsystem (ref. 22m) and a plurality of distributed switch fabric subsystems (ref. 22a1-22a4) (Figs. 1 and 2 and col. 6, line 60-col. 7, line 20, esp. col. 7, lines 17-20). Andersson does not expressly disclose that at least one of the distributed switch fabric subsystems comprises a primary distributed switch fabric subsystem and at least another one of the distributed switch fabric subsystems comprises a redundant distributed switch fabric subsystem; removing the primary distributed switch fabric subsystem from the network device during network device operation; and switching over to the redundant distributed switch fabric subsystem. Blanc teaches, in a switching system, providing two switch fabric subsystems where each switch subsystem is connected to the same inputs in order to ensure continuous switching processes through redundancy (col. 1, lines 48-53 and col. 2, lines 16-34). It would have been obvious to one of ordinary skill in the art at the time of the invention to have at least one of the distributed switch fabric subsystems comprise a primary distributed switch fabric subsystem and at least another one of the distributed switch fabric subsystems comprises a redundant distributed switch fabric subsystem; to remove the primary distributed switch fabric subsystem from the network device during network device operation;

and to switch over to the redundant distributed switch fabric subsystem in order to ensure continuous switching processes through redundancy.

48. Regarding claim 35, Andersson in view of Blanc discloses that the central switch fabric subsystem is a first central switch fabric subsystem and further comprising: switching network data through a second central switch fabric subsystem and the plurality of distributed switch fabric subsystems; removing one of the first and second central switch fabric subsystems from the network device during network device operation; and switching over to the other of the first and second central switch fabric subsystems (Blanc: col. 1, lines 48-53 and col. 2, lines 16-34).

49. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ardon et al. (USPN 5,105,420) in view of Mazzola et al. (USPN 5,740,171).

50. Regarding claim 33, Ardon discloses a network device, comprising: a central switch fabric subsystem (ref. 25) (Fig. 6 and col. 11, lines 6-63) and at least one local timing subsystem (Fig. 1-3 and col. 5, lines 5-col. 6, line 15) where the use of time slots requires a synchronization mechanism and where the local timing subsystem is the component in the local subsystem which synchronizes to the network control and timing links; and a forwarding mechanism comprising: a switch fabric interface (Fig. 6 and col. 11, lines 6-63) where it is implicit that the switch fabric contains an interface since the switch fabric communicates with other devices; a data slice subsystem coupled with the switch fabric interface for transferring network data with the central switch fabric subsystem (Fig. 6 and col. 11, lines 6-63) where Ardon discloses the use of time slots which necessitate a "data slice subsystem" such that the network data is cut into the time slices (col. 11, lines 41-47); a data slice controller (switch controller) coupled with the data slice subsystem for controlling network data transfer by the data slice subsystem (Fig. 6 and col. 11,

lines 6-63); and a local timing subsystem coupled with the data slice subsystem and the data slice controller (Fig. 1-3 and col. 5, lines 5-col. 6, line 15) where the use of time slots requires a synchronization mechanism; and a central timing subsystem (ref. 2030) coupled with the at least one local timing subsystem within the central switch fabric subsystem (Fig. 1-3 and col. 5, lines 5-col. 6, line 15) where "the local timing subsystem is the component in the local subsystem which synchronizes to the network control and timing links.

Ardon does not expressly disclose that a plurality of switch fabric cards comprise the central switch fabric subsystem or that a forwarding card couples with the switch fabric cards. Mazzola teaches, in a switch system, that a switch is typically a computer comprised of a variety of interconnected cards where the interconnected cards include forwarding cards (line cards) (col. 1, lines 29-39 and col. 3, line 64-col. 4, line 8) where the line cards, as broadly defined, are forwarding cards since the line cards forward information out of the switch. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to have a plurality of switch fabric cards comprise the central switch fabric subsystem and to have a forwarding card coupled with the switch fabric cards since switches are typically implemented using cards.

Conclusion

51. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 7:00-4:30 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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